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Original Lectures.

LECTURES ON THE MORBID CONDITIONS OF THE BLOOD.

DELIVERED AT
THE BELLEVUE HOSPITAL MEDICAL COLLEGE.
PRELIMINARY TERM, SESSION OF 1863-4.
By AUSTIN FLINT, M.D.,
PROF. OF THE PRINCIPLES AND PRACTICE OF MEDICINE.

LECTURE VII.

Matter of Contagion.—Viruses.—Venoms.—Infectious Miasms.—Poisons, Palpable and Impalpable.—Zymotic Conditions.—Considerations which lead to the Inference of the Prior Existence of a Constitutional or General Morbid Condition, or Indeterminate Blood-Changes in various Local Affections.

Of morbid conditions of the blood induced by morbid products originating within the bodies of the persons affected, that is, intrinsic products, there are doubtless many in addition to those which have been noticed. We do not possess demonstrative or even inferential knowledge of the different kinds of these morbid products existing in the blood, the sources whence they are derived, the manner of production, etc. We only know by means of clinical observation some of the circumstances under which they originate, and the phenomena to which they give rise. These belong to what may be called the indeterminate morbid conditions of the blood. Deferring for the present the consideration of these, the morbid conditions of the blood induced by morbid products derived from other bodies, and those induced by extrinsic matters other than morbid products, claim attention. Morbific substances, of various kinds, developed exterior to the body, *i. e.* extrinsic, may gain access to the blood and give rise to disease, either directly by their immediate action on one or more parts to which they are transported in the blood, or, indirectly, by occasioning morbid changes in the blood itself.

In this category are embraced morbid matters which constitute contagion. A material substance is, of course, transported from one person to another whenever a disease is communicated. An appreciable substance is conveyed when diseases are produced by inoculation, but the quantity is impalpable and inappreciable when they are involuntarily or imperceptibly communicated. In the latter case the matter is probably received with the inspired atmosphere. The matter of contagion is distinguished as *virus*. It is convenient to limit the application of this term to matter which is palpable or appreciable. When the material substance consists of emanations which are not apparent to the senses it belongs among the morbific matters distinguished as *miasms*. The terms contagion and infection have been used with not a little confusion as regards the relative signification of each. It would be convenient to restrict the term contagion to a palpable morbid product or virus, and the term infection to an impalpable emanation or miasm. With this use of the term some diseases are contagious and not infectious, for example syphilis; some are both contagious and infectious, for example small-pox; and some are infectious but not contagious, for example pertussis or hooping-cough.

Each contagious or infectious disease has its own peculiar and specific morbid product. The virus of small-pox, the miasm of scarlatina, for example, produce respectively these two diseases and no other forms of disease. And in this fact we have a grand criterion of the special character of a disease, and of determining the identity or non-identity of diseases which may have more or less phenomena in common. Typhus and typhoid fever, for instance, are considered by some identical and by others non-identical. Now if it be conclusively shown that the infectious miasm of typhus gives rise always to this form of disease and never to typhoid fever, and, conversely, that the infectious miasm of typhoid fever gives rise to this disease and never to typhus, we have the best evidence that they are not one disease but two distinct diseases.

Of the nature of the virus of contagion or the miasm of infection, in other words, in what consists the faculty of producing a particular form of disease, and of giving rise to actions by which it is reproduced, we have no positive knowledge. The hypothesis now generally entertained, and most consistent with our present knowledge, is, that the matter of contagion and infection, received into the blood, acts as a ferment, exciting in the blood certain processes on the principle of catalysis. The grounds for this hypothesis are the minute amount of matter required, and the occurrence of an interval of days or weeks between its introduction into the system and the development of morbid phenomena. Diseases supposed to be thus produced are distinguished as *zymotic*, a term introduced by the Registrar-General of Great Britain, Mr. Farr. All diseases communicable by contagion or infection are considered as zymotic, and also, as will be seen presently, certain diseases which are not communicable.

An extrinsic morbid product, giving rise to a morbid condition of the blood, may come from an inferior animal. Hydrophobia is thus derived from the dog or cat, and glanders from the horse. Disease in man may also be produced by the introduction into the blood of a healthy product derived from an inferior animal. Such a product is not a virus but a venom. Venomous animals are those which produce, physiologically, a product which, received into the system of man, or another animal, gives rise to disease.

Morbific substances, not of the nature of virus nor of venom, are, strictly speaking, poisonous. These are derived from the mineral and vegetable kingdoms. Their morbid effects are, in general, proportionate to the quantity of poison received into the system. Here is a striking point of difference as contrasted with viruses and venoms. The morbid effects of the latter bear little or no proportion to the amount received. The effects of some poisons are cumulative; that is, they are manifested suddenly, as it were by a kind of explosion after the quantity has increased to a certain amount. Lead, for example, may be taken into the system for a long period without any manifestation of morbid effects; but, at length, when the accumulation has reached a certain point, its poisonous results are suddenly declared.

Extrinsic poisons are palpable and impalpable. Palpable poisons admit of examination, and their source and nature are understood, but not always their mode of operation. Impalpable poisons belong among the miasms. The physical and chemical characters of these have not been ascertained, and their sources are not always known.

The palpable poisons are numerous. Their study constitutes an important branch of scientific inquiry called *toxicology*. Examples of the palpable poisons are arsenic, lead, mercury, prussic acid, etc., etc. It is now generally admitted that they act by getting into the blood, not by means of sympathetic influences propagated from the part with which they first come into contact as was formerly supposed. They offer marked differences as regards the gravity of their effects. Some are quickly fatal in a small quantity, as prussic acid, strychnia, aconite, etc. Others act more slowly and with less virulence, as mercury, lead, etc.

The effects of extrinsic poisons are manifested in different parts of the body. Certain poisons exert effects on particular parts. Thus, alcohol and opium exert their effects on the brain; arsenic and oxalic acid on the heart; strychnia, woorara, and conia on the spinal cord; mercury on the mouth; lead on the muscles, etc. Many, however, act simultaneously on a greater or less number of parts. As regards their effects on the blood, some are merely mixed or in solution, and act directly on parts to which they are carried in the circulation. Oxalic acid, arsenic, mercury, lead, prussic acid, alcohol, etc., have been discovered in the

blood. In other instances chemical combinations take place in the blood. A striking illustration of this is offered by one of the experiments of Bernard. Emulsine and amygdaline are not poisonous separately, but they combine and form prussic acid. Injected separately into the veins in different animals they do no harm. If, however, they are successively injected into the veins of the same animal they combine in the blood to form prussic acid, and the animal dies as if struck by lightning. On the other hand, the blood presents certain combinations which take place readily out of the body. An experiment of Bernard illustrates this fact. Cyanuret of potassium and lactate of iron in combination form prussian blue. Injected successively into the veins they do not combine in the blood, but the combination takes place and prussian blue is formed after both have entered the urine or within the intestinal canal.

Examples of impalpable poisons are the miasms giving rise to the periodical fevers, epidemic cholera, cholera infantum, epidemic dysentery, yellow fever, etc. All the extrinsic causes of disease which are special in their character, and not of the nature of virus or venom, belong among the miasms. By the term special is meant causes each of which produces exclusively a particular disease. Now the existence of a special cause, as just defined, may be inferred from the special character of a disease. Whenever, therefore, the special character of a disease is established we may attribute it to a toxical origin. All endemic and epidemic diseases have a special character; in other words, the events which make up the clinical history of each are so definite and are regulated by such fixed laws that they undoubtedly proceed from special causes, which it is certain are produced, not within but without the body. These special causes are not of the nature of virus or venom; they are impalpable or miasms. But their nature and source are very imperfectly known, nor does our present knowledge enable us to understand the morbid conditions of the blood which they occasion. Of course these morbid conditions and the special causes differ in the instance of each epidemic or endemic disease. The condition of the cause in yellow fever, for example, cannot be the same as in epidemic cholera, in view of the differences as regards the phenomena of laws between these two diseases. The position of existing knowledge is the same with respect to poisonous as to infectious miasms. The most rational proposition as regards both is, that they give rise to the morbid conditions of the blood by a catalytic action. But there is this striking point of contrast between the operation of poisoning miasms and the matter of contagion and infection:—Poisonous miasms do not lead to a reproduction by the processes of disease, of the poison, and, hence, the diseases to which they give rise are not communicable.

With the foregoing view, diseases due to poisonous miasms belong among those which are distinguished as zymotic. Thus the class of zymotic diseases embraces all which are contagious or infectious, endemic and epidemic.

The morbid conditions of the blood, so far as they are at present known to the pathologist, have now been passed in review. It is evident that our existing knowledge is very incomplete. Were all the morbid conditions of the blood fully understood there is reason to believe that we should have the thread guiding us through the labyrinth of pathology. This knowledge would probably elucidate the greater part of the morbid conditions of the solid structures. The most rational view of the source of disorders referable to the circulation, the various secretions and excretions, nutrition, together with morbid states of the muscular and nervous systems, is, that they proceed often if not generally from blood-changes. The blood offers at the present moment a most interesting and promising field for the scientific inquirer. It is here that important discoveries are to be made which will shed light on the nature and source of diseases now imperfectly understood. In view of the physiological relations of the blood, and what has been already ascertained respecting its pathological relations, it is safe to prophesy that future revelations in pathology are mainly to come from analytical and experimental researches in this direction.

The remark has been already made that the existence of numerous morbid conditions of the blood may be logically inferred, although, with our present knowledge, they cannot be demonstrated. In other words, there are many *indeterminate blood-changes* involved in different diseases. What are the considerations which warrant this conclusion? I shall devote the remainder of this lecture to the answer to this question.

It is a reasonable supposition that all the diseases distinguished as *general*, or *constitutional*, or *of uncertain seat*, involve blood-changes. In fever, generally, if not always, these changes are occasioned by extrinsic morbific matter, either a virus, a miasm, or a poison. But many other diseases evidently involve a general or constitutional pathological condition called a cachexia or a dyscrasia. Now it is more rational to refer this condition to the blood than to any other portion of the body. Exclusive of the blood, there is only one anatomical system sufficiently extensive in its relations to warrant a suspicion of its being the seat of the essential pathological condition in general or constitutional affections; this is the nervous system. But the nervous system, as a generator of force, depends on the blood. Without blood it develops nothing, and its functions are soon lost. Morbid conditions of the blood, voluntarily produced, affect powerfully the nervous system. For example, alcohol injected into the veins produces the phenomena of inebriation, chloroform and ether extinguish sensation, strychnia excites the motor fibres of the spinal cord, woorara paralyses them, etc. These substances exert their effects either by being transported into the blood and acting upon the organs affected, or by means of modifications which they produce in the blood. Clinical observation, moreover, shows that a large proportion of nervous affections is due to prior blood-changes. As between the blood and nervous system, therefore, the essential pathological conditions which constitute the cachexiæ or dyscrasiæ must relate to the former.

Assuming the correctness of the statement just made, it is enough, with regard to any local affection, to show that it is dependent on a general or constitutional morbid condition; in other words, that it involves a cachexia or dyscrasia, to render it probable that it proceeds from a blood-change of some kind. It only remains then to inquire what circumstances authorize the inference that a local affection depends on a general or constitutional condition. The following are grounds for such an inference:—

1. A local affection not due to the action of an appreciable cause, acting on the part affected, is said to be spontaneous. Of course it is not so called with strict propriety. Every affection must have an adequate determining cause. The distinction implied by the term is, that the cause is internal and inappreciable, and the term is used in contradistinction from causes called traumatic. Now the internal determining causes involved in the production of the so-called spontaneous diseases, it is not probable, are exclusively local; they are not generated within the part affected, but, originating within the system somewhere, are brought to bear upon the organs or structures in some particular situation. For example, a person exposed to no obvious cause of disease is attacked with pleurisy; whence comes the internal cause determining this disease? It is reasonable to conclude that the disease is a local expression of some prior, more general morbid condition. Clinical researches have shown this to be true in certain cases in which pleurisy, occurring in the course of Bright's disease, is fairly attributable to the accumulation of urea in the blood. The so-called spontaneity of any disease is presumptive evidence of its being a result of a localization of a morbid condition seated in a movable element of the body, that is the blood. Going no further than the simple fact of a local affection developed without any appreciable local cause, the existence of a blood-change is a logical inference from this fact.

That most local affections distinguished as spontaneous do proceed from some general or constitutional morbid condition, is rendered probable in addition to the consideration just presented, by others which are to follow.

2. Local affections characterized by morbid deposits are, from this fact, rationally attributable to a morbid condition of the blood. The production, for example, of a purulent matter in great abundance, having the property of a virus, in small-pox, or the exudation into the peyerian, solitary, and mesenteric glands in typhoid fever, denote a blood-change proper to each of these diseases. In like manner all the cutaneous eruptions involving morbid products, especially when not due to obvious local causes, in other words, when spontaneous, imply blood-changes. The old medical philosophers, guided by common sense, before the discovery of the circulation, attributed most diseases to the presence of certain *peccant humors* which were to be concocted and expelled before recovery could take place. They regarded the local and general phenomena of diseases as proceeding from the effects of nature at coction and elimination. Morbid processes, therefore, were, in a great measure, conservative. These notions gave way under the influence of an exclusive solidism developed and fostered by the study of morbid anatomy, which is occupied, not with morbid actions but their results; disease itself was overlooked, the attention being engrossed with its effects. But in the ancient common-sense notions lies the germ of a true pathology, as modern researches are constantly exemplifying more and more. With our present knowledge the old humoral doctrine is, in the main, applicable to the diseases which have been named; and its application may be extended to other diseases characterized by morbid deposits, such as gout, tuberculosis, carcinoma, and perhaps even to certain inflammations attended by the exudation of lymph.

3. Disorders of the different secretions and excretions denote blood-changes. This is true, more especially, of excretions, inasmuch as excreted matters exist preformed in the blood, and are simply eliminated by the excretory organs.

4. The fact of local affections occurring simultaneously or in quick succession in different situations, is evidence of a general or constitutional morbid condition. Examples are, purulent formations in pyæmia, tubercle deposited in various organs, cancer, etc. Shifting of the location of the local manifestations of disease, as in acute articular rheumatism, is another point of evidence.

5. The occurrence of a local affection on the two lateral sides of the body, and a correspondence of the affection of the two sides as regards the character of the affection, its situation, extent, etc., constitutes a very strong point in evidence of a constitutional morbid condition involving a blood-change. A striking law of symmetry characterizes certain diseases. They may be distinguished as symmetrical diseases. Examples are various cutaneous diseases, articular rheumatism, Bright's disease of the kidneys, pulmonary tuberculosis, etc. We cannot well conceive that the internal determining conditions which give rise to the local manifestations in these diseases are seated elsewhere than in the blood. We may assume it to be a rational conclusion that the essential pathology of all symmetrical diseases pertains to the blood; and the fact that the law of symmetry is exemplified in any disease, suffices to render it probable that it is a blood disease.

6. The *modus operandi*, so far as known, of remedies found to be useful in the treatment of a great number of local affections, shows their source to be in the blood. The remedies referred to are those which act by being absorbed into and modifying the blood. These remedies have been significantly termed *alteratives*. Their immediate effects in the blood are unknown; we can only say that they alter in some way and affect favorably the condition of the blood. Examples are mercury and iodine.

The foregoing are some of the considerations which establish, by logical inference, the general or constitutional origin of local affections, the nature of the general or constitutional morbid condition being unknown, but consisting, as is rationally probable, in indeterminate pathological changes in the blood. Other considerations which might be adduced are omitted, the aim being, not to enter into a discussion of this topic, but only to present suggestions for your own inquiries and reflections.

Original Communications.

THE INFANTILE PULSE IN HEALTH.

By J. LEWIS SMITH, M.D,

PHYSICIAN TO THE ORPHANS' HOME AND ASYLUM.

Among physicians, the world over, the pulse is considered an important aid in determining not only the nature, but also the gravity of diseases. Where the science of medicine is most advanced, and the signs and symptoms of the various pathological states are best understood, it does not have that preëminence as a means of diagnosis, which is accorded to it in less enlightened countries; still there are few physicians, however extensive their medical knowledge, who do not carefully note its frequency and force in all cases of serious sickness.

Since the pulse is considered so important a symptom, and is one so readily observed, it is strange that its character in the healthy infant is not more accurately known. It is true, that some eminent European observers, as Trousseau and Valleix, have published statistics of the infantile pulse in a state of health, but there is such a disagreement of these statistics that it is uncertain which of them or whether any of them affords a correct standard for comparison. Some are unreliable, from the small number of observations; some from the fact that the pulse of the infant is grouped with that of older children; and others because the condition of the infant, as regards its activity or its emotions, is not stated. This last is a serious defect, since the pulse of the infant is in a marked degree accelerated by its movements and passions. My own observations have been arranged in three groups, according to whether, first, the infant were asleep; secondly, awake, bnt quiet, or exercising slightly, as in nursing; or lastly, in a state of active exercise, or of great excitement, as in crying. It is evident that the separation of the third from the second group is arbitrary, but statistics of this sort do not seem to admit of a better division.

It is evidently desirable to possess a correct standard with which to compare the pulse of the infant, especially in the treatment of obscure diseases; and the idea of making these observations first occurred to me in attending a case of suspected meningitis, in which the diagnosis depended, in a measure, on ascertaining whether the pulse was accelerated.

It is not easy to collect statistics of the healthy infantile pulse which are free from error, since there are often slight derangements of the system in infancy, not manifested by any marked symptoms, but which produce acceleration of the pulse. Among these derangements may be mentioned mild catarrhal and bronchial affections, and disturbances of the digestive function. It is believed that the following statistics are as free as possible from error from this source. These statistics relate to infants under the age of one year.

PULSE OF THE NEW-BORN.

At birth the action of the heart is temporarily arrested. There is a momentary stasis of blood at the centre of circulation, while the direction of the current is being changed. In cases which I have examined in reference to this matter, there has been suspension of the movements of the heart during the interval between the expulsion of the head and body of the infant, and there is usually a period of suspended action after the body is expelled. In a large major-

ity of cases the pulsations begin in about one-eighth of a minute after birth, and at first they are so slow, that by the close of the first quarter of a minute the number of beats does not usually exceed eight or ten. In exceptional cases the movements of the heart commence almost immediately after birth, and then the number in the first quarter of a minute considerably exceeds that mentioned. By the second quarter of a minute the cries are vigorous, and the pulse now is rapidly accelerated, rising commonly above 120, and sometimes above 160 beats per minute. In twelve observations the average pulse in the second quarter of a minute after birth was found to be at the rate of 136 per minute. This rapid action of the heart continues till the crying ceases, and the infant becomes quiet, when the pulse diminishes. In infants feeble at birth, and especially in those who have more or less congestion of the brain, the result of tedious or unnatural labor, this statement does not hold true. In these cases it is often many minutes before the pulse returns, and it does not rise to the normal frequency till the congestion is relieved. In cases terminating fatally, from the persistence of the congestion, or from the occurrence of meningeal apoplexy, the pulse rarely rises above, or, at least, remains above 100 per minute, and before death it falls below the frequency of the normal adult pulse.

The following table contains 57 observations of the pulse in healthy infants during the first half hour of life:—

2d quarter of first minute, pulse at rate of 162, 128, 164, 140, 152, 156, 96, 128, 124, 116, 156, 116,	124 to 180	96 to 100	118 to 124
3d quarter of first minute, pulse at rate of 148, 160, 156, 160, 160, 156, 144, 134,			
4th quarter of first minute, pulse at rate of 108, 172, 140, 156, 164, 134,			

2d minute pulse, 164, 104, 112, 160, 162 to 164, 140, 108, 122, 120.
3d to 10th minute inclusive, 160, 140, 162 to 164, 148, 160 to 164, 132, 124, 148, 140, 160, 124.
10th to 30th minute, 156, 100, 132, 136, 124, 148, 118.

In the following table are 42 observations of the pulse during the first week of life, and subsequently to the first six hours:—

Asleep.	*Awake (Quiet, moving slightly, nursing).*	*During or after active movements, or strong mental excitement.*
140	118	140
136	114	160
114	128	140
128	136	152
116	118	
112	128	Extremes 140 and 160
124	152	Mean . . 149
136	112	
108	126	
120	136	
136	106	
124	132	
120	132	
108	104	
108	140	
112	128	
	140	
Extremes 108 and 140	132	
Mean . 122	118	
	126	
	116	
	128	
	Extremes 104 and 152	
	Mean . 126	

"M. Lediberder," says Bouchut, "could only count the pulse in the first minute of life in six children, and he has observed from 72 to 94 pulsations." Valleix estimates the pulse between the ages of two and twenty-one days, at 87. Trousseau states that the pulse in the first week of life varies from 78 to 150: and Dr. Gorham's observations are somewhat similar to Trousseau's. My observations, as seen from the above tables, do not correspond with the assertions of Lediberder and Valleix. Indeed, if there were no conflicting testimony, there would still be a strong presumption that these authors are in error, for we would not expect that the pulse of the infant, in whom there is greater activity both muscular and visceral, would fall so much below that of the fœtus. It is probable from the expression "could only count the pulse * * in six children," that Lediberder, and perhaps Valleix, counted the pulse at the wrist, which with exceptional cases is very difficult, and is frequently impossible in the first week of life, and that they missed some of the beats, or not unlikely sometimes counted their own pulse. Immediately after birth, there is so little force of the ventricular systole, and the extreme arteries of the system therefore pulsate so freely, that neither in the limbs nor at the anterior fontanelle can the pulse be properly enumerated in the majority of infants. It can be readily and accurately ascertained only by auscultation, or by placing the hand on the precordial region, or more easily directly after birth by the pulsation in the cord. The pulse occasionally ceases in the cord almost immediately after birth, but ordinarily it is present for a quarter and sometimes for half-an-hour.

From the close of the first week till the close of the first month:

Asleep.	*Awake (quiet, moving slightly, nursing).*	*During or after active movements, or strong mental excitement.*
128	140	162
124	132	156
112	136	140
128	132	152
144	148	
112	160	Extremes 146 and 162
112	140	Mean 152
104	140	
112	124	
104	140	
Extremes 104 and 144	Extremes 124 and 160	
Mean 118	Mean 139	

From the close of the first month till the close of the third month:

Asleep.	*Awake (quiet, moving slightly, nursing).*	*During or after active movements, or strong mental excitement.*
124	144	176
120	136	152
124	124	158
120	144	144
104	112	152
116	142	180
120	132	
126	112	Extremes 144 and 176
132	148	Mean 160
122	124	
124	128	
104	132	
124	144	
104	124	
108	124	
124		
116		
Extremes 104 and 132	Extremes 112 and 148	
Mean 118	Mean 131.75	

From the close of the third month till the close of the sixth month:

Asleep.	*Awake (quiet, moving slightly, nursing.)*	*During or after active movements, or strong mental excitement.*
104	132	132
112	120	148
104	130	148
104	140	144
116	132	156
124	132	156
	128	
Extremes 104 and 116	124	Extremes 132 and 156
Mean 108	136	Mean 147
	124	
	124	
	144	
	136	
	116	
	116	
	120	
	132	
	132	
	120	
	112	
	128	
	136	
	124	
	146	
	140	
	Extremes 112 and 146	
	Mean 129	

From the close of the sixth month till the close of the first year:

	Asleep.	*Awake (quiet, moving slightly, nursing).*	*During or after active movements, or strong mental excitement.*
	104	132	132
	104	120	144
	118	130	152
		140	152
Mean	109	132	198
		132	160
		128	
		124	Extremes 132 and 198
		136	Mean 156
		132	
		120	
		112	
		124	
		124	
		144	
		136	
		116	
		116	
		120	
		132	

Extremes 112 and 144
Mean 127·4

The average pulse of the healthy infant, according to Trousseau, is 137 in the first and second months, 128 from the third to the sixth month, and 120 from the sixth to the twelfth month. It is seen that his observations agree closely with mine in the second group, and it is probable that he selected only those cases for his statistics in which the infants were awake but quiet. The pulse does not vary greatly in the different months of the first year.

The above statistics show a marked diminution of the pulse, in sleep, except in the first week of life. If we take the pulse of the infant when awake, but quiet, as the standard, there is an average reduction of twenty-one beats per minute from the close of the first week till the close of the first month, thirteen and three-fourths from the close of the first till the close of the third month, twenty-one from the close of the third month till the close of the sixth, and eighteen and two-fifths in the last half of the year. These statistics also show that by the emotions and by active exercise, the pulse may become as rapid as in the gravest diseases. The practitioner should be aware of this, for if not he may often form a wrong idea of the gravity of the disease which he is treating. There is greater acceleration of pulse from the emotions and from movements in feeble than in robust children. The influence of digestion on the pulse of the infant, under the age of one year, cannot be readily ascertained, since, from the frequency of nursing, there is scarcely a moment, during the day, when this function is not actively performed.

FOUR CASES OF ASTIGMATISM.

By HASKET DERBY, M.D., Boston.

SURGEON TO THE MASS. CHARITABLE EYE AND EAR INFIRMARY.

The recent valuable paper by Dr. Bumstead, published in this journal, renders it unnecessary for me to go into particulars concerning the nature of the affection known at present under the name of Astigmatism. So few have been the cases of this not uncommon affection reported in this country since the publication of the work of Donders, that a few additional notes on the subject may not be devoid of interest.

A single preliminary word as to the method of expressing the amount of vision possessed by a given patient, and the nature of the sight test alluded to by Dr. Bumstead as "Dyer's Letters."

"Printed letters of a square form, the separate strokes of which have a thickness equal to one-fifth of their height, are in general visible to the normal eye under an angle of five minutes," says Snellen, in the preface to his recently published test letters. On a placard are printed separate lines of isolated letters; the letters in each line of equal size, and severally formed after the above plan. To each line are attached figures, giving the number of feet in which the letters of that line are visible to the normal eye, under an angle of five minutes.* The amount of vision (V) in a given case is expressed by a fraction, the denominator of which is the distance (D) in which a given line of letters *should* be seen, the numerator the distance (d) in which they *are* actually seen.

Thus we have $V = \frac{d}{D}$.

A normal eye distinguishes 20 in 20 feet, then—

$V = \frac{20}{20} = 1$ the normal standard.

If 20 is seen only in 10 feet, then—

$V = \frac{10}{20} = \frac{1}{2}$.

If 100 is seen only in 5 feet, then

$V = \frac{5}{100} = \frac{1}{20}$.

An exceedingly convenient method is thus afforded of expressing the amount of vision actually present, as well as of testing the correctness of the answers, by comparing one with another. Thus, if 40 be seen in 20 feet, 30 must be seen in 15 feet, etc.

Now Donders makes us, at the outset, mindful of two things:—First, that in the abnormally astigmatic eye it is very seldom that V = 1. It is not uncommon to find $V = \frac{1}{2}$. Secondly, that a series of lenses of unequal strength seem to leave much the same impression on the eye. It is difficult to elicit an expression of preference, $\frac{1}{8}$ and $\frac{1}{4}$† are found equally good. Where the vision is rendered less acute from other causes, the change in strength of the glass produces a much greater effect.

Case 1.—Rev. Mr. J., aged 27, came to me March 12th, 1862. He complained of being unable to see any object with as much distinctness as other people. He had always considered himself near-sighted, and I found in fact that concave glasses improved his vision. With the naked eye he made out 100 in 20 feet; with $-\frac{1}{18}$, No. 50, in the same distance, though he noticed very little difference between any of the glasses, from $-\frac{1}{18}$ to $-\frac{1}{24}$. I accordingly ordered him $-\frac{1}{18}$. Nov. 3d he came back and informed me that, though with the glasses his sight was "changed," he was unable to say it was improved. Some objects he saw better, some worse than before. The idea of astigmatism occurred to me. I requested him to examine the relative distinctness of vertical and horizontal lines at the distance of 10 feet, those numbered 70 in Snellen's test being selected. It was found that with the naked eye he saw the horizontal sharply defined, while the vertical were blurred and confused; with his concave glass the reverse was the case. A methodical examination with the stenopaic apparatus now gave the following results:—*Right eye.* With the narrow slit held vertically, No. 30 is seen in 20 feet, all indistinctness vanishes. With the same slit held horizontally, no letter on the placard can be made out, but on adding $-\frac{1}{14}$, No. 30 is again recognised. *Left eye.*—With the slit in the vertical position, *convex* $\frac{1}{48}$, in the horizontal *concave* $\frac{1}{18}$ must be added, in order to make the vision in each of these meridians equal to that of the other eye.

The right eye is therefore the seat of simple myopic astigmatism, with myopia in the horizontal meridian: the left is an instance of compound astigmatism, being hypermetropic in the vertical, myopic in the horizontal meridian, the myopia preponderating. For the right eye a simple cylindrical glass $-\frac{1}{18}$, is required; the axis of course being placed vertically; for the left a bicylindrical glass, the one surface convex $\frac{1}{48}$, the other $\frac{1}{18}$; the axes of the cylinders being at right angles to each other. Such glasses were ground and furnished the patient, whose delight at seeing

* A system of letters constructed on this principle was worked out and published by my friend Dr. Dyer, of Philadelphia, before the appearance of Snellen's test in print, though of course some time after Snellen's plan had been brought before the Ophthalmological Congress at Heidelberg.

† For the sake of brevity we adopt the usual fractional method of expressing the strength of a glass. It is perhaps hardly necessary to say that the denominator of the fraction indicates the focal distance of the lens, the distance in which it would unite parallel rays incident upon it. Thus $\frac{1}{8}$ expresses a convex lens of 8-inch focus, $-\frac{1}{8}$ a concave lens of 8-inch virtual focus.

clearly and distinctly for the first time in his life, was almost unbounded. Practically the vision was brought from $\frac{1}{3}$ up to $\frac{2}{3}$, by neutralizing the astigmatism.

Case 2.—Mrs. A., aged 28, has always had extremely imperfect vision. Concave glasses assist her somewhat, but she has never found a glass that would enable her to recognise people across the street. March 31st of the present year I made an examination, and found that with the naked eye she made out No. 100, with $-\frac{1}{18}$, No. 80 in 20 feet. Struck by an amount of amblyopia, so great in comparison with the degree of myopia, I examined with the stenopaic slit, and found the right eye to be myopic $\frac{1}{24}$ in the vertical, $\frac{1}{36}$ in the horizontal meridian. The left was myopic $\frac{1}{18}$ in the vertical meridian, normal in the horizontal. With the astigmatism corrected, the vision of each eye became nearly $\frac{1}{2}$. The right eye was ordered a glass, the one surface spherical $-\frac{1}{36}$, the other cylindrical, $-\frac{1}{36}$. The left eye received a simple cylindrical glass $-\frac{1}{18}$. The axes of the cylinders were of course horizontal. With this combination the vision was about doubled, and the patient at once infinitely relieved.

Cases like this, of compound myopic astigmatism, where a different degree of myopia exists in each meridian, are exceedingly rare. Donders has observed but four instances. We are also here reminded of two facts on which the Utrecht professor lays much stress. First, that the correction of astigmatism by cylindrical glasses is often only partial. Secondly, that the meridians of greatest and least curvature do not by any means necessarily correspond with the vertical and horizontal meridians of the cornea itself. In the present instance there was a wide discrepancy.

Case 3.—Miss F., aged 21, has always considered herself quite near-sighted, but never found glasses help her. Is strongly convinced that the difficulty is on the increase. The cornea of each eye is found to be decidedly conical, particularly that of the left. No glass enables her with either eye to distinguish a single letter of the test in 20 feet, not even No. 200. It is a source of regret to me that I did not estimate the precise amount of vision; it was, at all events, as the above statement shows, less than $\frac{1}{18}$. As the patient was quite unwilling to submit to an iridesis I bethought me of ascertaining whether the cornea, in yielding, had done so equally in all its meridians. March 25th, an examination was made with the stenopaic slit, the results being as follows:—*Right eye*, in the horizontal meridian, myopia $\frac{1}{4}$, vision $\frac{2}{3}$; in the vertical myopia $\frac{1}{18}$, vision $\frac{2}{3}$. *Left eye*, in the horizontal meridian, myopia $\frac{1}{4}$, vision $\frac{1}{3}$. In the vertical no combination helps. I ordered for the right eye a lens, the one surface of which was ground $-\frac{1}{36}$ on a spherical, the other $-\frac{1}{3}$ on a cylindrical surface. For the left a simple cylindrical glass $-\frac{1}{4}$. With this combination her vision is more than quadrupled. From not seeing 200 in 20 feet, she now reads 50 in the same distance. Of course this is only a temporary advantage, and would never be urged as preferable to operative interference in cases of keratoconus, except we were well assured that the process were stationary, and the conicity not excessive. Even then we should be chiefly influenced by cosmetic considerations.

Case 4.—Simple hypermetropic astigmatism. Miss A., aged 18, has never seen any distant object distinctly, and never been able to employ herself on a near object for any length of time without the usual symptoms of asthenopia, such as blur, pain over eyes, and headache. There was no insufficiency of the internal recti, and convex glasses did not improve vision, which amounted to only $\frac{2}{3}$. I examined the cornea in its different meridians, and found in the right eye, in the vertical meridian, vision $\frac{2}{3}$, no glass improves. In the horizontal there was hypermetropia $\frac{1}{14}$, vision $\frac{1}{2}$. Left eye: in the vertical meridian vision $\frac{1}{2}$, no glass helps; in the horizontal hypermetropia $\frac{1}{18}$, vision $\frac{1}{2}$. I ordered for the right eye $\frac{1}{14}$ cylindrical, for the left $\frac{1}{16}$ cylindrical; the axes of the cylinders to be vertical. Vision was then increased from $\frac{2}{3}$ to $\frac{1}{2}$, and the patient enabled to use her eyes for reading, writing, and the like, as long as she wishes.

The account of these cases thus given is necessarily as imperfect as it is brief; nothing like a strict analysis being here attempted. The latter would of course contain accurate measurements of the cornea itself.

N.B. The glasses above ordered were ground by Paetz and Flohr, of Berlin, who promptly responded to my orders. It is hardly necessary, of course, to allude to the importance of their being set in the frame at exactly the proper angle. The remarks of Donders in this connexion are so practical that I translate them entire:—

"In using cylindrical glasses it is of the first importance that the axes of curvature of the surfaces correspond with the principal meridians of the dioptric apparatus of the eye. A trivial departure from this gives rise to considerable trouble, especially when the stronger glasses are used. We can best accomplish this by inserting the glasses, which should be round, in a spectacle frame provided with round eyes. By revolving the glasses the axes of the cylindrical surface may thus easily be brought into the desired position. By slightly moving the whole frame we quickly learn in which direction the glass has got to be revolved, and the test that it has obtained exactly the proper position is that, if the frame be slightly tilted to the one side or the other, the correction becomes less complete, the vision less perfect. If the correct position for round glasses be once found, they can be cut into an oval shape, and set in another frame, the direction of the axes being preserved. From what has been said it is easy to infer that a well fitting frame, and one that keeps well in place, is an indispensable adjunct."

Reports of Hospitals.

CHURCH U.S.A. GENERAL HOSPITAL, MEMPHIS, TENN.

C. H. CLEVELAND, ACT. ASST. SURGEON U.S.A., IN CHARGE.

REPORT OF FIVE CASES OF HOSPITAL GANGRENE,

By D. C. LLOYD, MEDICAL CADET, U.S.A.

(*Concluded from page* 268.)

CASE IV.—Thomas P. Riggs, private, Comp. J, Hawthorn's Arkansas (Confederate) Infantry, was wounded at Helena, July 4th, 1863, by a ball entering the inner surface of the middle third of the right leg, passing through the gastrocnemius muscle, and emerging at the opposite point in the outer side. Admitted to Church Hospital, from the Overton Hospital, July 31st, 1863. Patient says he was doing well until the 15th of July, when gangrene appeared on his wound. Yeast and charcoal poultices, and nitric acid had been applied to the gangrene without arresting its progress. His appetite has been poor, but is now improving. The wound presents a surface of six inches longitudinally, by four transversely, extending to the posterior aspect of the leg: the upper margin being within three inches of the popliteal space. Slight hæmorrhage occurred from one of the branches of the popliteal artery, which was arrested by the persulphate of iron. His tongue is clean and moist, pulse 75, full and regular; complexion sallow; skin moist; bowels regular. Ordered quinine and iron. August 12th.—Patient seems better, he is lively, says he had profuse perspiration about three o'clock this morning. Pulse 100, full; tongue clean and moist; temperature 96°; appetite poor, wound unimproved; attended with slight fœtor, and a sharp pain upon moving his limb. His bowels are regular, and he sleeps well in the fore part of the night. Labarraque's solution was applied with oakum to the wound. August 16th.—The sloughs readily came off this morning, leaving a fine healthy looking surface, attended with no

fœtor. The patient has diarrhœa; his tongue is moist and clean; appetite improved; temperature 94°; pulse 94, full. To take the following: R. Hope's mixt. ʒ ij., a tablespoonful every three hours. August 17th.—On examining the wound this morning a sulcus was found at the lower margin, dipping down between the muscles and skin, attended with gangrenous odor, and dark grey sloughs, to which bromine was applied with a swab. August 23d.—Patient says he does not sleep well. His appetite is moderate; tongue moist; pulse 108, of good strength; skin moist; temperature 93°. Nitric acid was applied to the wound. August 27th —The sulcus is getting deeper, measuring two inches in depth, attended with strong fœtor. His foot and ankle are œdematous, caused by the obliteration of the external saphenous vein. Compound solution of bromine was injected into the sulcus with a small glass syringe, the wound covered with a cerate plaster, and the foot and leg bandaged to the knee. The patient's complexion remained sallow; skin moist; pulse 78, moderate; appetite moderate, *but craves acids;* temperature 82°; bowels regular. August 28th.—The sulcus was incised from the lower border of the wound to the os calcis; the tendo-achillis was found involved to its insertion. The compound solution of bromine was applied with a swab. August 30th.—His appetite is improved, his tongue is moist and clean; he says he does not sleep well; the œdema is extending up the leg. Bromine was again applied to the wound. September 1st.—He had a heavy chill about five o'clock this morning. His complexion is of a leaden hue; tongue moist; skin moist; has no appetite; breath saccharine; bowels regular. The sloughs readily came off this morning, leaving a clean surface. On the night of Sept. 2d he became delirious, and continued so until 2 P.M. on the third, at which time he died. Mortification had begun to extend from the foot up the leg twelve hours before his death.

Autopsy—Two hours after death: Body greatly emaciated; the lower and middle lobes of the right lung were engorged, and studded with metastatic abscesses; thrombi were found in the right ventricle, pulmonary arteries, and aorta.

Case V.—Joseph A. Sullard, private, Co. A, 7th Mo., Confederate. On the 24th of July he was nursing a Confederate officer at the Officers' Hospital, who had gangrene—and while dissecting off the destroyed tissues from his wound he cut his ring and little finger with the scalpel, at the joint formed by the first and second phalanges. He applied nitric acid immediately. He also had a bruise on his left ankle, which, he says, the surgeon told him, was caused by a spent ball. On the 4th of August a scab formed, which he scratched off, and a sero-purulent fluid exuded from the wound. A flaxseed poultice was applied, and the next morning he was sent to Church Hospital.

The patient is weak; his mind much depressed; complexion sallow; appetite moderate; pulse 112, tolerably full; bowels regular. Says he has a slight burning pain in his ankle. On examination the joints of the ring and little finger are much swollen, presenting dark grey sloughs, extending over the posterior aspect. The external malleolus of the left leg is covered with a dark grey slough of uneven surface, two inches in breadth, and three in length, irregular margin, the edges everted, emitting a highly offensive odor. Dressings of oakum, saturated with liquor calcii chloridi, were applied to both wounds, and wet with the above solution, one part to eight of water, every two hours. The patient to have half-an-ounce of brandy every two hours, and nourishing diet.

The wounds continued to improve under the above treatment, and on the 12th inst. no gangrene remained. The extensor tendons of the fingers were destroyed, the phalanges falling apart, and the application of splints was necessary to keep the bones in apposition. The wounds were granulating healthily, the patient cheerful and hopeful, and says he feels much better. His appetite is good; tongue slightly coated; pulse 112, of good strength; temperature 100°. Everything was progressing favorably until the 7th, at which time he had severe rigors, for which twenty grains of quinia were given in two powders, two hours apart.

August 19th.—The wound is again invaded by hospital gangrene. The cellular and tegumentary tissues involved. Liquor calcii chloridi was applied and continued, the wound gradually improving until the 26th, when the wound measured five inches longitudinally, and three transversely. The external malleolus and fibula were uncovered, the latter for four inches upward. The external lateral ligaments were destroyed, and gangrene extending between the articulation and around the posterior border of the wound, involving the subcutaneous tissue. The compound solution of bromine was injected with a small glass syringe into the joint, and applied around the edges with a swab, and reapplied on the 29th. On the 30th no gangrene remained, but granulations did not appear until the third of September. His countenance was of a leaden hue; appetite poor; tongue dry; pulse 84, weak, compressible, and irregular. On the 8th the compound solution of bromine was again applied on a few dull looking spots, which it was thought might become gangrenous. The patient's general system began to improve; his appetite was better; tongue clean and moist; bowels regular. September 20th.—The patient's general health is improving. Pulse 100, of good strength; tongue moist and clean; he has a slight diarrhœa; skin moist. The granulations are abundant throughout the whole extent of the ulcer. The fibula on either side is covered with granulations. The external malleolus is completely covered. The patient has been gradually improving up to the present time. He has occasionally had slight diarrhœa, which was controlled by astringents. Cicatrization is now (Oct. 1st) extending over the wound, and the patient has every prospect of an early recovery. The wounds on his fingers have entirely healed.

From about the 20th of August to the third of September, there was evidence of a very serious derangement of the mechanical action of the heart. The face was somewhat bloated, of a leaden hue, with turgidity of the mucous membrane of the mouth and eyes, the eyes at one time for several days becoming almost inflamed. The foot and limb became swollen, and the granulations ceased to grow and became flabby. The heart gave evidence of a large thrombus in the right ventricle, extending to the pulmonary artery through the semilunar valves, which were prevented from closing, so that the blood regurgitated, and the pulse irregular, uncertain, compressible, and weak. This condition gradually passed away, and now the heart appears to perform its functions normally.

In treating these cases, great care was taken to keep the wards in proper conditions. Everything of an offensive character was immediately removed; the wards were thoroughly cleaned every day, and disinfectants in the form of chlorinated soda solution, permanganate of potassa, and bromine, were freely used. The patients' clothes were changed as soon as they became soiled, and were immediately washed, well aired, and perfectly dried before being used again. Stimulants were given internally every two hours, in the form of brandy, whiskey, wine, porter, and ale. Astringents given to check diarrhœa, and antiperiodics whenever they had rigors. The diet was nutritious, and varied to suit the appetite of the patient. The tendency to looseness of the bowels, which was characteristic in the majority of the patients suffering with gangrene, was carefully watched, and proper remedies immediately administered. In the application of local remedies to the wounds, bromine was preferred to any other. Nitric acid, Labarraque's solution, liquor calcii chlorinati, sulphate of zinc, creasote, &c., had been used since the opening of the hospital, but preference was given to bromine, pure, or in the form of the compound solution. One application of bromine has seldom failed to destroy the gangrene, when the wound had been properly prepared, and a second or third application has generally proved efficient. From twenty-four to forty-eight hours after the application the sloughs came readily off, leaving a healthy-looking surface. Before applying the bromine, the wound was well denuded

of all dead tissue with the forceps and scissors, and thoroughly syringed with warm water, after which Labarraque's solution of soda was syringed into the various sinuses and sulci; the solution uniting with the ichorous discharge leaves the wound clean, at the same time stimulating the wound preparatory to the action of the bromine. Then a dry cloth was laid over the wound, and with a small stick made to penetrate into all the sulci and sinuses, to absorb as much of the moisture as possible. The wound being prepared in the above manner, the bromine was applied with a swab, or small glass syringe, and covered with a cloth spread with a simple cerate, the whole enveloped with a piece of oiled silk, and thus bandaged. The dressing was not disturbed until next morning, when the destroyed tissue, generally, readily came off, leaving a clean healthy-looking wound—to which oakum, saturated with Labarraque's chlorinated soda, was applied. Owing to the difficulty of thoroughly cleansing the wound, the bromine could not always be brought in contact with all the dead structures, but a second or third application seldom failed to produce the desired effect. The state of the patient's mind clearly indicated when the gangrene was destroyed. He would become enlivened, his appetite return with vigor, his pulse become stronger, and in a few days he would gain his strength, so as to be able to sit up or go about the ward.

Progress of Medical Science.

PREPARED BY E. H. JANES, M.D.

HÆMOSTATIC TREATMENT OF CHOLERA, HÆMORRHAGE, EXHAUSTION, ETC.

The writer, when in India, had unexpectedly a regiment prostrated with fever placed under his charge, and having but a small supply of quinine, he employed tourniquets to intercept the blood in the extremities, with a result so favorable as to induce him to bring the subject to the notice of the profession. There being about twenty-eight pounds of blood in the human body, and about two pounds in each of the four limbs, to enable us to relieve the congestion attendant upon intermittent disease, we have the control of at least a pound of blood in each limb by retarding it in the veins. This may be done with advantage in the premonitory symptoms of apoplexy, in severe cases of dyspnœa, in some organic diseases, and inflammations, where it is equivalent to the withdrawal of a certain quantity of blood from the general system. Another method of controlling the circulation is by stopping the arterial circulation in a limb. If a tourniquet is applied to the femoral artery, probably half of the blood intended for the limb is prevented passing into it and makes its way back to the heart, circulating through a smaller circle, and in some diseases proving a powerful tonic or stimulating effect upon the general system. This is apparent in those sudden and appalling cases of uterine hæmorrhage, also in the collapsed stage of cholera, where the system is so much prostrated that the most powerful medicines have no effect, the application of the tourniquet immediately removes the painful cramps; it increases the volume of blood, which stimulates the heart to increased action, removes congestion, changes the morbid distribution of blood from the secreting surface of the alimentary canal, and sets up a new and salutary action in its place. The purging and vomiting are thus stopped, the pulse becomes stronger, the heat and strength of the system are quickly restored, and time is allowed for medicines to act. When the individual is weak, and the state of collapse great, care is required in emptying by friction the blood in the veins of the extremity to be bandaged; and the effect will be more marked if the tourniquet be applied to four extremities. It may be kept on for hours, or even for a day or two. When reaction has taken place, the pressure of the tourniquet is complained of, and if it be loosened too abruptly the blood spreads over the extremities, and the patient rapidly sinks. A number of cases of cholera are reported, illustrating the treatment, and also the danger of a too sudden removal of the instrument, from which the following conclusions are deduced:—

1. By its obstructing the circulation it immediately stops the distressing cramps of the extremities in cholera.

2. By increasing the quantity of the circulating fluid in the trunk, and thereby stimulating the heart's action, it removes morbid congestions, stops the secretions from the bowels, increases the animal heat, and powerfully tends to restore health.

3. By improving the vigor of the system medicines act more powerfully, and in a more salutary manner, in removing morbid actions.

4. When the reaction has taken place, by loosening the tourniquets with care the determination of blood to the internal parts is diminished by its diffusion over the extremities upon which the tourniquet had been placed. They are immediately to be tightened when there is any coldness or weakness experienced, or any tendency to relapse. This must be most carefully watched for, and prevented.

5. By increasing the volume of blood in the contracted circulation, the force of the heart is increased, local congestions are removed, and the whole system is strengthened.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, Nov. 18, 1863.

DR. JAS. ANDERSON, PRESIDENT, IN THE CHAIR.

HYDATIDS OF THE UTERUS. DR. SQUIBB'S REPORT ON THE NEW U. S. PHARMACOPŒIA.

Dr. Finnell presented a specimen of hydatids of the uterus which was of interest from the fact that the patient was supposed by her medical attendant to be pregnant. Dr. F. had seen a case similar to this about five years before.

THE NEW UNITED STATES PHARMACOPŒIA. THE CHANGES THAT HAVE BEEN MADE, WITH THE REASONS FOR SO DOING.

Dr. E. R. Squibb, of Brooklyn, N. Y., a member of the Committee for Revision of the U. S. Pharmacopœia, reported that the work had been published, and made in substance the following statements in relation to the changes that had been made, together with the reasons for so doing.

Weights and Measures.—In the department of weights and measures the following changes have been made. The terms pound, drachm (for other than fluids), and scruple are disused, and all weights are expressed by the Troy ounce or grain. In writing for fluids the sign letter *f* should precede the ℥ or ʒ sign. The fluid measures are derived from the wine gallon. The term gallon is not used, its equivalent being expressed in pints. The use of the Arabic numerals is recommended as preferable to the Roman.

The Materia Medica list is divided into two sub-classes. I. Primary, and II. Secondary Lists. The first consists of those articles which are either of primary importance as remedies, or enter into the formulæ of the work, while the second class is formed of those which are of secondary importance and do not enter into the formulæ.

Chromic acid (acidum chromicum) is introduced as a valuable and self-limiting escharotic. Thus far it has been employed extensively in uterine diseases. It is applied through a speculum by a glass tube or a glass rod.

Lactic acid (acidum lacticum) is introduced for the purpose of making lactate of lime; and the *glacial phosphoric*

acid is also placed in the primary list for the preparation of dilute phosphoric acid, a very valuable nervine tonic.

Fusel oil (Alcohol Amylicum) is introduced for making valerianic acid.

Aloes is divided into three varieties, I. Aloe Barbadensis, II. Aloe Capensis, and III. Aloe Socotrina, which is the best.

Ammonia alum (sulphate of aluminum and ammonia) is given for a choice as an ordinary astringent.

Aqua Ammoniæ fortior.—The term *aqua* is substituted for *liquor*, inasmuch as the former is intended to apply to a solution of volatile substances and the latter to fixed substances,

Belladonna Radix is added for the preparation of atropia.

Bromine is introduced to furnish the bromide of potassium, the reputed remedy for hospital gangrene.

Chiretta is added to the list of bitter tonics.

Chloroformum Venale.—Commercial chloroform is placed in this list to give an opportunity for prescribing the common article for external application, it being a great deal cheaper, and equally, for that purpose, as good as the pure.

Cinchona Flava.—The cinchonas are divided into C. flava and C. pallida, the flava (yellow) being the best.

Fermentum (yeast) is made officinal, that it may be written for in prescriptions; *gutta percha* is introduced for making the gutta percha collodion.

The Butter of Cocoa (Oleo theobromæ) is introduced as the best ingredient for suppositories.

Opium.—Opium must not be considered officinal unless it contain 7 per cent. of morphia.

Potassæ Permanganas is a most valuable disinfectant for carcinomatous growths, but hardly fit for anything else.

Saccharum lactis (sugar of milk) is introduced as a vehicle for alkaloids where it is necessary to divide very finely. It is very slowly soluble, and is by this means capable of disguising the taste of medicines.

Scammony must contain 75 per cent. of true resin to be officinal.

Sinapis (mustard) is divided into two varieties (white and black), both having different therapeutical properties.

Whiskey (spiritus frumenti), and bay rum (spiritus myricæ) are officinal preparations. The former should contain 48 to 56 per cent. of alcohol, be free from odor, and be at least two years old.

Port and Sherry Wines are also officinal, the former is named Vinum Portense, and the latter Vinum Xericum.

Sulphur.—Sublimed sulphur is introduced to be used as an ingredient for ointments in cutaneous affections, inasmuch as it contains the sulphurous and sulphuric acid, which the washed rotund sulphur does not. This latter is used internally.

Dr. Squibb will continue his review at the succeeding meetings of the Academy.

There being no other business before the body the motion for adjournment prevailed.

THE death of Dr. Chrestien, "the veteran of military surgery," at ninety years of age, is announced. He died at Lyons "full of honors and of years."—*Brit. Med. Jour.*

M. BARDINET, of Limoges, read a memoir before the Academy of Medicine upon an epidemic of jaundice, as it had affected puerperal women in that city. His memoir is based on twenty-five cases, three of which proved fatal. He has found it assuming three degrees: the *simple* or *benign*, which in nowise interferes with the progress of the pregnancy, this going on to its full term; the *abortive*, in which it is severe enough to determine abortion or premature labor, but leads to no further ill effect; and the *malignant*, in which the death of both mother and infant is rapidly produced. This epidemic prevailed extensively amidst the population of Limoges, but, with the exception of pregnant women, it proved in all a very mild affection. —*Med. Times and Gazette.*

American Medical Times.

SATURDAY, DECEMBER 12, 1863.

TREATMENT OF REBEL AND FEDERAL PRISONERS.

IN our last number we presented the report of the recently liberated surgeons on the condition of the Federal prisoners at Richmond. The public sympathy has been deeply stirred by these narrations, and a feeling of intense indignation has been aroused. The conduct of the rebel authorities admits, in truth, of no palliation. The humane treatment of prisoners is a duty paramount to all others, and this violation of the usages of civilized warfare is an unmitigated barbarity, and altogether inexcusable. We alluded also on the same occasion to the humane treatment of rebel prisoners by our Government, and we should not again refer to the matter at length were it not that certain foreign medical periodicals are in the practice of charging upon the United States authorities a disregard of the amenities of civilized life in the conduct of this war. In the treatment of their respective prisoners we have a fair exponent of the civilization and humanity of the contending parties, and we propose briefly to exhibit the facts bearing on this subject. The Sanitary Commission has recently investigated the particulars of the treatment of both Federal and Rebel prisoners, and presented in the *Bulletin* the results. From this report we shall freely extract.

And, first, as to the treatment of Federal prisoners. In addition to the facts presented last week we gather the following from this report:—

"Of the 185 who escaped with their lives from the prisons of the rebel capital, eight died on the passage from City Point; several, almost immediately after landing, expired of inanition. Of 134 sent to the 1st Division Hospital, 43 had died up to Sunday last; and many more, exhibiting frightful signs of starvation, though still alive, are destined not to survive. On their arrival at the landing, many were in a dying condition; and were *alive* with vermin, filthy, and almost entirely destitute of clothing. Some had only shreds of a single shirt remaining, others the remains only of an old blanket around the body; most of them were footsore; 120 were without shoes; and so reduced, many of them, as to be beyond the reach of food or stimulants to restore them. All are unclothed, unsheltered, and unfed. Knapsacks are always taken from prisoners, and their contents stolen. The sick only are sometimes allowed to retain a blanket; other clothing, and boots and shoes, almost always are taken. Upon Belle Island there is no shelter for the thousands there, most of whom are sick and half naked, lying upon the ground; sand is incrusted into the sore backs of some; and the unanimous testimony of all about the food was, that it was a 'famine ration;' that men 'starved upon it.' The rations, meagre as they are, are not served regularly—but their distribution is dependent upon the mismanagement and caprice of officers *who sell them.* One officer, an intelligent Englishman, said, 'I have known the Quartermaster *to sell all the bread he could find sale for* and send the rest to the prisoners.' Some describe their imprisonment as 'a long struggle with hunger.' In answer to questions as to clothing and shelter upon Belle Island, one man said, 'the men mostly sleep in the sun in the daytime, and walk about all night, to keep warm.' A captain of cavalry said, 'the ration in hospital is one and a half ounces of meat, half a pint

of their bean soup, and three slices of bread daily. A few bandages were distributed among the badly wounded, but no lint, and no medicines.' Another man said, 'I have seen half-starved fellows from Belle Island search about for crumbs on the floor on reaching the hospital, and devour their first scanty meal like hungry dogs; so nearly starved are they when sent to hospital that none of them live more than two days. They all die. I saw some of our poor fellows utterly crazy from want and ill-treatment. Others had forgotten their names, and the number and name of their regiment.' A prisoner from Belle Island says, 'they had some old tents there, but now nothing in the way of shelter is left but some old strips of canvas. The daily ration was ten pounds of beef and bones for one hundred men. It was sometimes bad; but we never minded that. One loaf of bread—often it was sour, and had lime in it—was divided in six slices; two slices and about one-quarter of a pint of boiled dirty water with a teaspoonful of beans in it, was all we got; but sometimes we didn't get that. The loaf weighed about a pound. The guard got a whole loaf a day. We sometimes got three or four spoonfuls of rice, but it was not boiled enough. The soup was made by adding one and a half pailfuls of soup, in which the meat and bones were boiled, to twenty pailfuls of hot James river water.' One man said, 'the *soup*, as they called it, was so thin, that except for the dirt in it, it would not stain a white handkerchief.'

Another says:—"'Our ration was bread, and a *pint cupful* of rye, coffee, or the same quantity of soup made of rice and turnip leaves—*for twelve men*. The beans we got were always musty. In one room in the hospital were eighty-one patients with diarrhœa; forty of them died. Sometimes officers who were kept in a room above us bought food—potatoes and bread—and passed it down through holes where chains for hauling up tobacco passed. They often poured soup down to the hungry fellows, but they had to knock on the floor, and when the guard found us out we were deprived of our rations.' Several describe the hospital ration as barely sufficient for well men to keep alive upon; the sick were all too bad and weak to be benefited much by it. The water of James river, which was made into *soup*, when it was taken for the use of our men on the island, was black from the filth of the sewers which empty into it; the bread is often sour, and the meat without salt; disgustingly fresh; the rebel officers, when they can get salt, *sell it*; rice is always given half boiled. The quartermaster, after the bread is baked, sells all he can get pay for, and gives us our ration out of what is left. Rations were purposely served after dark, and the meat—a mouthful apiece for sixteen men—was thrown upon the floor in all the filth, where they had to divide it."

We close this testimony of the Federal prisoners in regard to their treatment, with the statement of Gen. Neal Dow, who is still an inmate of the Libby prison.

"*We have only corn bread (unsifted), a little rice, and a few poor sweet potatoes and water for our rations.* The bread is about half a pound; the rice half a gill. I had to-day eight potatoes; only two were good for anything—medium size—the others not larger than one's finger!!"

In contrast with these tales of suffering and privation we present the following facts in regard to the condition and treatment of the rebel prisoners at Point Lookout, Maryland, one of the principal depots. Of the hospital the report says:—

"The hospital was situated in the southern part of the encampment, and was composed of eighteen hospital tents complete, arranged two together, end to end, and placed in two rows, a broad street intervening, with the cook and dining tent on the eastern end, and facing the street. In these tents there were one hundred patients, and all, with the exception of five or six, were on raised bunks, and all were lying on mattresses, with at least one blanket for covering. Eight of their own men were detailed to take care of them; and although they were enlisted men, yet six were graduates of some medical school, and the other two had been students. The rations were very good, both in quantity and quality amply sufficient for any sick man; but there are exceptional cases where they need something more delicate than the regular army ration. The majority are perfectly well satisfied, and very little complaint is made in this particular. The following is the full, half, and low diet:—

FULL DIET.	HALF DIET.	LOW DIET.
Dinner.	*Dinner.*	*Dinner.*
Beef or pork, 4 oz.	Meat, 2 oz.	No meat.
Potatoes, 4 oz.	Potatoes, 3 oz.	Potatoes, 2 oz.
Hard-tack, 3 oz.	Hard-tack, 2 oz.	Hard-tack, 1 oz.
Breakfast and Tea.	*Breakfast and Tea.*	*Breakfast and Tea.*
Coffee or tea, 1 pt.	Coffee or tea, 1 pt.	Coffee or tea, 1 pt.
Rice, 2 gills.	Rice, 1 gill.	Rice, 1 gill.
Molasses, 1 oz.	Molasses, ½ oz.	Molasses, ½ oz.
Hard-tack, 3 oz.	Hard-tack, 2 oz.	Hard-tack, 1 oz.

"Soup and soft bread are also given them at least once a week. Of their shelter there can be no possible complaint, for they all have good tents, such as wall, hospital, Sibley, wedge, shelter, hospital, and wall tent-flies. The majority are in the wedge tent. Average in a hospital tent, from fifteen to eighteen men; in wall tent, from ten to twelve; in shelter tent, three; in Sibley tent, from thirteen to fourteen; in wedge tent, five; under hospital-fly, from ten to thirteen; under wall tent-fly, from three to eight. Of the shelter tents, only a very few are excavated and boarded at the sides, and almost every tent throughout the camp has a fire-place and chimney, built of brick, made by them from the soil (which is clay) and sun-baked. In a few of the Sibleys holes are dug, fire built, and covered at the top; generally the tents are filled with smoke.

"The ration to the well men is for the day, pork, 3 oz. or salt beef, 4 oz.; hard-tack, 10 oz.; coffee, 1 pint. Soup is also given once a week, potatoes and beans every five days, soft bread once a week; and fresh meat had been issued to them once a week, up to two weeks ago, when, from some cause I could not find out, it was stopped."

The treatment of rebel prisoners at Point Lookout is no more kind and considerate than at other depots of prisoners. At David's Island, New York, where between two and three thousand sick were congregated after the battle of Gettysburg, every attention was given them and every want was supplied. In this review we would not be understood as boasting of the generosity of our Government, for we believe that it has only done its duty to its prisoners, but we do claim that when its conduct is in such striking contrast with that of the rebels it should not be accused of "foul blows," and of having violated every rule of civilized warfare.

THE WEEK.

From occasional newspaper rumors we gather some of the items which are to form the staple of the report of the committee appointed to investigate the alleged abuses in the Army Medical Department. They consist thus far of alleged purchases of hospital stores of particular individuals or firms, at a higher rate than was demanded in the general market. In this course the Surgeon-General deserves special commendation. He simply purchased pure drugs, and other articles of good quality, and paid accordingly for them. The instances are not few where medical purveyors have gone into the general market and purchased cheap drugs, but of the most impure kind. In patronizing a reliable house, and paying well for the arti-

cles purchased, the Surgeon-General has set an example which other departments may follow to advantage.

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Deaths by chloroform are reported almost weekly in the London medical journals. Six have occurred during the last two or three months. But this fearful mortality does not seem to attract unusual attention, nor does it lead to any very practical efforts to correct the evils attendant upon its administration. A Chloroform Committee has been appointed to report upon the employment of this agent, but no other step has been taken. As usual, these cases have occurred where a very slight operation was about to be performed. It is probable that the fault generally lies in the manner of administration. This duty is generally intrusted to the junior physician present, and either to his ignorance or carelessness the fatal issue of the case may be traced. It would be better to discard this agent altogether than intrust it to incompetent hands.

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The physicians of Boston are again moving in behalf of a Government appropriation to Dr. Morton, the alleged discoverer of "practical anæsthesia." A circular has been issued calling upon medical men to influence the representatives and senators in Congress with whom they may have acquaintance. It is signed by Dr. James Jackson, President of the Morton Testimonial Association, and by Dr. John Ware, Chairman of the Executive Committee.

Correspondence.

FIRST AMERICAN OPERATION FOR REMOVAL OF THE HEAD OF THE FEMUR.

[To the Editor of the American Medical Times.]

Sir:—Much importance having recently been attached to the removal of the head of the femur, in caries, etc., in the hands of Dr. Sayre and others, it may be well to call attention to the following case in the seventh number of the first volume of the *N. Y. Med. and Surg. Reporter* (January, 1846). It is a detailed account of an operation of this kind, the first ever performed in this country, and at the time original with the operator. It will be seen to have been performed during the summer of 1845.

W. C. R.

New York, Dec. 8, 1862.

"Removal of the Head of the Femur.—This important operation was performed by J. P. Batchelder, M.D., of Utica, N. Y., during the past summer, and we are indebted to a friend for the following particulars of the case, which, if incorrect in any particular, we beg to be corrected when the operator shall have seen this article. The subject of the operation was a young man, about twenty years of age,—he received an injury at the hip-joint from the kick of a horse, some four or five years previously, and had not been able to use the leg from that time, up to that of the operation. The limb had become somewhat atrophied, and was about two inches shorter than its fellow. There were two fistulous openings, which kept up a continual discharge, and consequently his general health had become very materially impaired. The fistulous openings, above alluded to, were situated between the trochanter major and the tuberosity of the ischium, one above the other, and about three inches apart. Upon introducing a probe at either of the sinus-openings, a bone was felt, which was supposed to be the head of the femur necrosed; but whether it was detached or not, could not be determined. The dead bone, which lay in the direction of the acetabulum, was about three inches from the surface, owing to the tumefied condition of the soft parts. The Doctor, at first, prepared to make an incision down to the bone, and extract it, but owing to the state of the general health of the patient, he decided on a slower and equally certain, and perhaps safer mode; which was to introduce tents of compressed sponge, for the purpose of dilating the openings, the spongia præparata being inserted every night and morning, pro re nata, and gradually enlarging the quantity. In the course of ten days, the openings were considerably enlarged, in consequence of which, by the use of the probe, it was fully ascertained that the head of the bone was detached. The Doctor then introduced an eyed probe, very much curved, and armed with a ligature, attached to which was a cord of about one-tenth of an inch in diameter; he succeeded in passing the curved probe in at the lower opening, and along the bone, until it could be felt at the bottom of the one uppermost, when it was seized with strong dressing forceps, and after some trouble, but without much pain, drawn out through that aperture, and tied with a slip-knot over the intervening flesh, so as to be tightened daily, which was continued for about a fortnight, when it having completely effected the object for which it was employed, dropped off. On passing the finger deep into the chasm, the bone could be distinctly felt, and was ascertained to be slightly movable. A further and more particular exploration was now made, and the scoop end of a strong director hitched under one of its edges, by means of which it was slightly raised, which enabled the Doctor to grasp it with the forceps, and by turning it still more up, he finally succeeded in bringing it out edgewise through the external wound. The bone taken away, proved to be the head of the femur.

"The wound was dressed by introducing a fold of lint between the lips of the wound, passing it to the bottom of the cavity, and a compress and bandage applied. In the course of a few weeks, the entire wound was healed, with the exception of a small opening, which appeared to be about half an inch deep, over which he applied small blisters in succession, by means of which, and the use of Tr. canth. and tonics, it was soon completely healed. His general health rapidly improved under a constitutional treatment, until he was discharged, completely cured.

"In three months after the removal of the bone, he laid aside his crutches, and by the help of a cork-soled shoe, walked short distances quite easily, and somewhat gracefully.

"It may be said by some, that the *knife* would have been preferable to the slower means used, but it was adopted upon the Golden Rule, 'do unto others as we would wish to be done by,'— a principle which should always govern us in surgery, as well as in morals.

"What must have been the condition of the hip-joint from the time of the injury up to the time of the operation? Was the neck of the bone fractured and dislocated at the same time, by the kick from the horse, some years previously? Or was the neck of the bone merely fractured, and the head left remaining in the socket, and acting as an irritant, causing the cotyloid ligament to be absorbed, thus freeing itself from the acetabulum? Or could it be that there was morbus coxarius caused by the injury, and followed by necrosis of the head of the bone? Our informant has not given us enough of the early history of the case, in order to decide an important question.

"The operation for removing the superior extremity of the femur, for hip-disease, has been performed twice in England, which was unknown to Dr. Batchelder, at the time of his operation; hence, the operation was original with him."

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The discussion on hydrophobia at the Academy of Medicine has resulted in the appointment of a rabies committee, charged with the duty of investigating prophylactic measures, and endeavoring to procure the extinction of this scourge of the canine race.

Army Medical Intelligence.

(CIRCULAR No. 25.)

SURGEON-GENERAL'S OFFICE,
Washington, Nov. 24, 1863.

The attention of Medical Officers in charge of United States General Hospitals is invited to the importance of preparing illustrations of the results of surgical operations. These can in many instances be conveniently obtained by means of plaster casts, which are readily made without subjecting patients to the slightest inconvenience.

The casts most desired are those of stumps of amputations of every variety, and models of limbs upon which excisions may have been performed.

In selecting proper subjects for representation, it would be well to choose not only cases in which the results have been favorable, but also those in which they have been unfavorable. In a collection like the National Museum, truthful representations of both good and bad results are alike instructive and valuable for future reference and study.

These casts, when made, should be forwarded to the Army Medical Museum by Express. The expressage will be paid in Washington. All preparations should be accompanied by proper histories, with name, rank, and station of the contributor, who will be duly credited in the Museum Catalogue.

JOS. K. BARNES,
Acting Surgeon General.

SURGEON-GENERAL'S OFFICE,
Washington, Nov. 21, 1863.

SIR—The Secretary of War having authorized the payment for washing from the appropriation for the Medical Department, for those hospitals and hospital steamers where a sufficient number of laundresses cannot be employed, you are directed to have the bills contracted under these circumstances, presented to the nearest Medical Disbursing Officer for payment.

By order of the Acting Surgeon-General.

C. H. CRANE, *Surgeon, U.S.A.*

To Medical Directors.

SURGEON-GENERAL'S OFFICE,
Washington, Dec. 20, 1863.

SIR,—The Acting Surgeon-General directs that the accounts of officers, treated in General Hospitals, be hereafter rendered to this office only at the time of their discharge from the Hospital, or of their decease while in it, instead of being forwarded monthly, as heretofore. The account of each officer is to be made out separately, embracing his total indebtedness from the date of his entry, to that of his leaving it, and is to be transmitted promptly at the latter time.

By order of the Acting Surgeon-General:

C. H. CRANE, *Surgeon, U.S.A.*

To Medical Directors.

ORDERS, CHANGES, &c.

Ninety-three Surgeons and Assistant-Surgeons arrived in Washington, D. C., on the 26th inst., from the Libby Prison, Richmond, Va. Surgeon Daniel Meeker, U.S.V., Medical Director to General Milroy, is among the number. They have been granted twenty days' leave.

Surgeon John W. Brennan, 1st U. S. Sharpshooters, has been honorably discharged the service of the United States, on account of physical disability from wounds received in action.

Upon the recommendation of a Board of Officers, instituted by Special Orders No. 285, June 27, 1863, from the War Department, Surgeon C. M. Stockwell, 27th Michigan Vols., has been honorably discharged the service of the United States, on account of physical disability.

Leave of absence has been granted Surgeon J. R. Duncan, 37th Kentucky Vols., to enable him, as member of the Legislature of Kentucky, to attend the coming session thereof. As soon as the Legislature adjourns, he will at once return to his regiment.

Assistant-Surgeon H. Eversman, U.S.V., has been assigned to duty in the office of the Medical Director at Louisville, Ky.

Surgeon Geo. H. Hubbard, U.S.V., has been relieved as Medical Director, District of South-western Missouri, Springfield, Mo., and assigned to duty at Fort Smith, Arkansas, as Medical Director, District of the Frontier.

Surgeon A. T. Watson, U.S.V., has relieved Acting-Assistant-Surgeon J. M. Pilsbury, U.S.A., in charge of General Hospital No. 1, Louisville, Kentucky.

General Hospital, McKin's Mansion, Baltimore, Md., has been discontinued.

Medical Inspector Vollum, U.S.A., reports from Chattanooga, that there are sufficient accommodations for all the wounded in the late battles at Lookout Mountain, Mission-Ridge, &c., and that medical supplies of all kinds are ample.

Surgeon Israel Moses, U.S.V., has been assigned to duty as Medical Director and Superintendent of Hospitals at Murfreesboro, Tenn. The badly wounded of "Chickamauga" have been sent there.

Surgeon Bernard Beust, U.S.A., has assumed charge of the United States General Hospital, Pittsburg, Pa.

Surgeon W. C. Otterson, U.S.V., has been assigned to duty in charge of General Hospital No. 8, Nashville, Tenn.

Surgeon R. K. Smith, U.S.V., to duty as Medical Director, Port Hudson, Miss.

Surgeon S. N. Sherman, U.S.V., to duty in charge of General Hospital, Grafton, Va.

Surgeon Henry Buckmaster, U.S.V., has been relieved from duty as Medical Director, District of the Frontier, and is awaiting orders at Leavenworth city, Kansas.

Surgeon Thomas B. Reed has been assigned to duty in charge of General Hospital, Parkersburg, Va.

The following Orders have recently been issued from the War Department:

Surgeon Alexander Ewing, 13th Michigan Volunteers, recently released as prisoner of war from Richmond, Va., will join his regiment. Permission to delay reporting until January 1, 1864, is hereby granted him.

The following Medical Officers, recently released as prisoners of war from Richmond, Va., will join their regiments. Permission to delay reporting for thirty days is granted them:—

Surgeon E. M. Seeley, 21st Illinois Vols.; Assist.-Surgeon D. B. Wren, 75th Ohio Vols.; Assist.-Surgeon William Spencer, 73d Indiana Vols.; Assist.-Surgeon R. R. McCardless, 110th Ohio Vols.; Surgeon W. A. Rogers, 3d Tennessee Vols.; Assist.-Surgeon P. G. Barrett, 7th Ohio Cavalry; Surgeon William M. Houston, 122d Ohio Vols.; Assist.-Surgeon, W. B. Hornbrook, 42d Indiana Vols.; Surgeon J. L. Woodin, 68th Indiana Vols.; Surgeon Daniel Meeker, U. S. Vols.; Assist.-Surgeons Josiah L. Brown, 116th Ohio Vols.; Charles D. Simpers, 6th Maryland Cavalry; Alexander M. Parker, 1st Maine Cavalry; Surgeons A. W. Whitney, 13th Massachusetts Vols.; L. Holbrook, 8th Connecticut Vols.; George B. Lummus, 13th Pennsylvania Cavalry; W. F. McCurdy, 87th Pennsylvania Vols.; W. B. Gavran, 26th Ohio Vols.; James T. Reeves, 21st Wisconsin Vols.; O. Q. Herrick, 34th Illinois Vols.; S. B. Hawley, 35th Illinois Vols.; L. J. Dixon, 1st Wisconsin Vols.; William Forrister, 5th Kentucky Cavalry; J. Shrady, 2d East Tennessee Vols.; C. W. Fowler, 105th Ohio Vols.; J. M. Cook, 24th Ohio Vols.; J. M. Rice, 25th Massachusetts Vols.; J. McCurdy, 11th Ohio Vols.; T. L. Magee, 51st Illinois Vols.; C. Helm, 93d Illinois Vols.; Assist.-Surgeon W. H. Lemon, 82d Indiana Vols.; Surgeons H. J. Herrick, 17th Ohio Vols.; George P. Ashman, 93d Ohio Vols.; J. R. Brelsford, 74th Ohio Vols.; Christopher S. Arthur, 75th Indiana Vols.; Assistant-Surgeons J. C. Fruit, 54th Pennsylvania Vols.; G. H. Blaker, 21st Michigan Vols.; G. E. Ranny, 2d Michigan Cavalry; J. K. Moore, 13th Ohio Vols.; R. A. Tullis, 7th Ohio Cavalry; A. J. Lang, 2d Tennessee Cavalry; C. P. O. Hanilon 90th Ohio Cavalry; E. M. Howland, 24th Ohio Vols.; W. H. Graham, 101st Indiana Vols.; S. E. Holzman, 58th Indiana Vols.; A. L. H. Burnett, 8th Tennessee Cavalry; W. G. McFadden, 79th Indiana Vols.; O. Nellis, 2d Virginia Cavalry; J. R. Uhler, 67th Pennsylvania Vols.; A. V. Ketchum, 83d New York Vols.; J. N. Miller, 120th New York Vols.; E. K. Hogan, 129th New York Vols.; S. L. Henry, U.S.A.; Acting Assist.-Surgeon Lewis Applegate, 102d New York Vols; Assist.-Surgeons Thomas F. Morgan, 10th Missouri Vols.; F. Smith, 116th New York Vols.; A. A. Mann, 1st Rhode Island Cavalry; N. S. Looker, 6th Illinois Cavalry; F. H. Patten, 12th Virginia Vols.; M. F. Bowes, 12th Pennsylvania Cavalry; J. W. Brown, 22d Illinois Vols.; N. H. Sidwell, 11th Ohio Vols.; A. H. Landes, 35th Ohio Vols.; A. H. Shaffer, 75th Indiana Vols.; D. D. Benedict, 17th Ohio Vols.; H. T. Woodruff, 100th Illinois Vols.; R. J. Hill, 45th Ohio Vols.; E. D. W. C. Wing, 57th Ohio Vols.; J. J. Sheldon, 45th Ohio Vols.; W. A. Downey, 58th Illinois Vols.; E. F. Purdam, 89th Illinois Vols; W. G. Bell, 35th Indiana Vols.; Robert Johnson, 100th Ohio Vols.; F. Corfe, 1st Wisconsin Vols.; J. M. Weaver, 93d Ohio Vols.; C. R. Pomeroy, 33d Ohio Vols.; J. C. Elliott, 18th Kentucky Vols.; H. A. Goodale, 21st Michigan Vols.; W. D. Towts, 81st Indiana Vols.; H. S. Griswold, 11th Michigan Vols.; H. T. Lacy, 101st Ohio Vols.; N. L. Hosack, 78th Pennsylvania Vols.; J. T. Walton, 103d Pennsylvania Vols.; Surgeon Frederick Wolfe, 39th New York Vols.; Assist.-Surgeons G. Bingel, 52d New York Vols.; E. Humphrey, 142d Pennsylvania Vols.; Surgeons Joseph Fittman, 18th Kentucky Vols.; S. J. Young, 79th Illinois Vols.; H. M. Morrison, 23d Kentucky Vols.; E. A. Merrifield, 44th Illinois Vols.; Assist.-Surgeons W. H. Park, 49th Ohio Vols.; W. A. Carmichael, 2d Ohio Vols.; G. W. Withers, 18th Pennsylvania Vols.

W. Pryor, having withdrawn the acceptance of his appointment as Assistant-Surgeon, 1st U. S. Colored Troops, and not having been mustered into service, said appointment is hereby revoked from its date.

Medical News.

THE Anniversary Dinner of the New York Society for the Relief of Widows and Orphans of Medical Men, will be given at the Metropolitan Hotel, Thursday, December 17th, at 7 o'clock P.M. The Stewards are, Drs. S. T. Hubbard, J. J. Crane, T. C. Finnell, J. R. Vankleek, C. D. Smith, J. W. Greene, R. A. Barry; from whom tickets may be obtained.

MARRIED.

WEBBER—LEAVITT.—In Portland, Maine, Nov. 25th, GEORGE C. WEBBER, Acting Assist. Surgeon, U.S.N., to Miss SARAH P. LEAVITT, of Portland.

METEOROLOGY AND NECROLOGY OF THE WEEK IN THE CITY AND COUNTY OF NEW YORK.

Abstract of the Official Report.

From the 30th day of Nov. to the 7th day of Dec., 1863.

Deaths.—Men, 109; women, 107; boys, 95; girls, 98; total, 409. Adults, 207; children, 193; males, 195; females, 205; colored, 6. Infants under two years of age, 169. Children born of native parents, 21; foreign, 148.

Among the causes of death we notice:—Apoplexy, 8; infantile convulsions, 24; croup, 24; diphtheria, 23; scarlet fever, 15; typhus and typhoid fevers, 23; consumption, 67; small-pox, 2; measles, 3; dropsy of head, 8; infantile marasmus, 14; cholera morbus, 0; cholera infantum, 0; inflammation of brain, 6; of bowels, 4; of lungs, 36; bronchitis, 11; erysipelas, 3; diarrhœa and dysentery, 12. 220 deaths occurred from acute diseases, and 30 from violent causes. 288 were native, and 162 foreign; of whom 116 came from Ireland; 40 died in the City Charities; of whom 12 were in Bellevue Hospital, and 4 died in the Immigrant Institution.

Abstract of the Atmospherical Record of the Eastern Dispensary, kept in the Market Building, No. 57 Essex street, New York.

Dec. 1863.	Minim. Temp'ture	SIX A.M. Temperature	SIX A.M. Evaporation Below.	SIX A.M. Barometer.	SIX A.M. Wind.	TWO P.M. Temperature	TWO P.M. Evap. Below.	TWO P.M. Barometer.	TWO P.M. Wind.	TEN P.M. Temperature	TEN P.M. Evap. Below.	TEN P.M. Barometer.	TEN P.M. Wind.
	°	°				°				°			
29th.	29	37	2	29·81	N.E.	40	5	29.86	N.W.	30	4	29.94	W.
30th.	23	25	3	30.00	N.W.	28	2	30.01	N E.	24	4	30.07	W.
1st.	20	20	2	30.21	N.W.	30	5	30.24	S.W.	32	3	30.21	W.
2d.	26	28	3	30.20	N.W.	36	5	30.19	S.W.	32	3	30.17	W.
3d.	30	30	3	30.11	N.W.	40	4	30.09	S.W.	38	3	30.10	S.
4th.	38	40	1	30.08	Fog.	45	5	30.03	S.	37	4	30.00	S.
5th.	28	39	3	30.01	N.W.	44	4	30.00	W.	32	2	30.07	S.

REMARKS.—29th. Mostly cloudy, with fresh wind. 30th. Clear early and late; snow, middle of the day. 1st, 2d, and 3d. Clear. 4th. Mostly cloudy. 5th. Variable A.M., Cloudy P.M.

SPECIAL NOTICES.

NEW YORK ACADEMY OF MEDICINE.—PROF. WM. H. VAN BUREN *will read a paper on "Certain Diseases of the Rectum," after which* DR. SQUIBB *will resume his remarks on the new "Pharmacopœia of the United States."*

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